

METHOD FOR REMOVING NITROGEN OXIDES IN EXHAUST GAS

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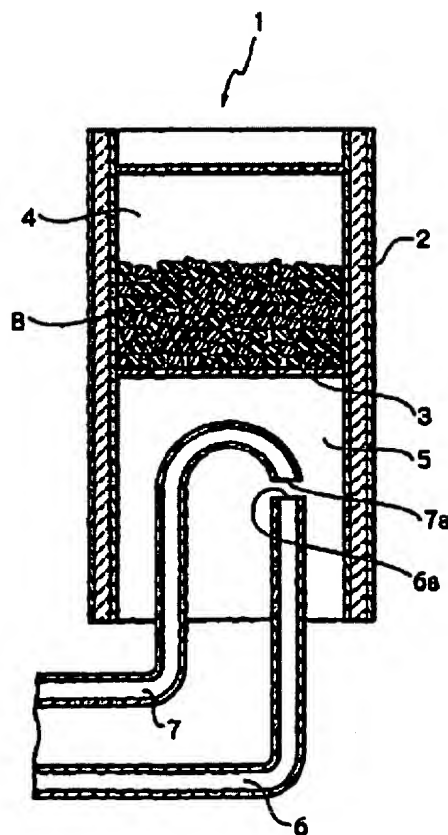
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Abstract of WO9846334

A method for removing nitrogen oxides in an exhaust gas, which comprises adding ammonia (NH₃) in an amount of 0.5 to 3 times the total amount of the stoichiometric amount with respect to nitrogen monoxide (NO) and the stoichiometric amount with respect to nitrogen dioxide (NO₂) to an exhaust gas generated in the chemical vapor deposition process in the preparation of semiconductors and containing dinitrogen monoxide (N₂O), nitrogen monoxide, and nitrogen dioxide, and bringing the mixed gas into contact with a noble metal catalyst at a temperature high enough to decompose dinitrogen monoxide, nitrogen monoxide, and nitrogen dioxide. This enables treatment of dinitrogen monoxide (N₂O), nitrogen monoxide (NO), and nitrogen dioxide (NO₂) in one stage. Further, the above method does not newly produce N₂O.

Fig. 1



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| <p>(21) 国際出願番号 PCT/JP98/01653</p> <p>(22) 国際出願日 1998年4月10日(10.04.98)</p> <p>(30) 優先権データ 特願平9/98995 1997年4月16日(16.04.97) JP</p> <p>(71) 出願人(米国を除くすべての指定国について) 株式会社 荏原製作所(EBARA CORPORATION)[JP/JP] 〒144-8510 東京都大田区羽田旭町11番1号 Tokyo, (JP)</p> <p>(72) 発明者; および (75) 発明者/出願人(米国についてのみ) 森 洋一(MORI, Yoichi)[JP/JP] 〒253-0045 神奈川県茅ヶ崎市十間坂1-6-18 Kanagawa, (JP) 荒川清美(ARAKAWA, Kiyomi)[JP/JP] 〒229-0036 神奈川県相模原市富士見3-11-15 Kanagawa, (JP)</p> <p>(74) 代理人 弁理士 社本一夫, 外(SHAMOTO, Ichio et al.) 〒100-0004 東京都千代田区大手町二丁目2番1号 新大手町ビル206区 湯浅法律特許事務所 Tokyo, (JP)</p> | | <p>(81) 指定国 JP, KR, SG, US, 欧州特許 (DE, FR, GB).</p> <p>添付公開書類 国際調査報告書</p> |

(54)Title: METHOD FOR REMOVING NITROGEN OXIDES IN EXHAUST GAS

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(57) Abstract

A method for removing nitrogen oxides in an exhaust gas, which comprises adding ammonia (NH_3) in an amount of 0.5 to 3 times the total amount of the stoichiometric amount with respect to nitrogen monoxide (NO) and the stoichiometric amount with respect to nitrogen dioxide (NO_2) to an exhaust gas generated in the chemical vapor deposition process in the preparation of semiconductors and containing dinitrogen monoxide (N_2O), nitrogen monoxide, and nitrogen dioxide, and bringing the mixed gas into contact with a noble metal catalyst at a temperature high enough to decompose dinitrogen monoxide, nitrogen monoxide, and nitrogen dioxide. This enables treatment of dinitrogen monoxide (N_2O), nitrogen monoxide (NO), and nitrogen dioxide (NO_2) in one stage. Further, the above method does not newly produce N_2O .

